Pacific Islands Fishery News

Newsletter of the Western Pacific Regional Fishery Management Council

Fall 2006

PRESIDENT'S RULES FOR NWHI

UNFAIR TO FISHERMEN?

On June 15, 2006, President George W. Bush established the Northwestern Hawaiian Islands (NWHI) as the nation's first marine national monument. The proclamation ostensibly allows eight federally permitted commercial vessels to continue fishing for five years in the NWHI for limited amounts of bottomfish and pelagic species. But the effect of monument regulations undercuts that permission and immediately stops 80 percent of commercial fishing in the area.

The regulations designate "ecological reserves" and "special preservation areas" that instantly prohibit NWHI fishermen's access to most of their fishing grounds, bringing an end to the harvesting in these areas of such deepwater snappers as uku, ehu, onaga and opakapaka—all in demand among Hawaii's chefs and seafood consumers.

Bobby Gomes, a NWHI bottomfish permit holder says that nearly all of his historically productive bottomfishing spots have now been placed off-limits.

The President's unexpected monument designation bypassed the public review process and halted impending public release of a draft environmental impact statement for the area that had been in preparation. The formal rules for the monument were published in the *Federal Register* on Aug. 29, 2006.

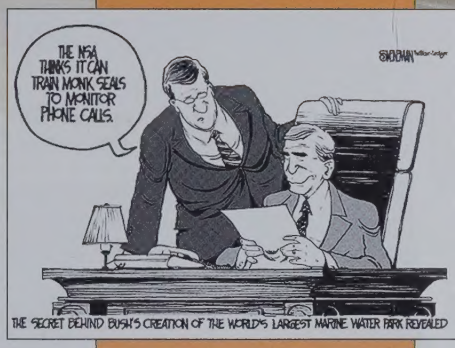
The NWHI monument includes approximately four-fifths of the Hawaii Archipelago. At 137,000 square nautical miles, it is larger than all the national marine sanctuaries combined. It also exceeds the total area of all national parks.

While commercial fishermen are prohibited from fishing in the ecological reserves, anyone else with a permit to enter monument waters may catch bottomfish and pelagic species without limit, provided the fish are consumed within the monument area. Even some environmental interests have questioned the fairness of the new regulations.

At a Cooperative Conservation listening session conducted Sept. 7, 2006, in Honolulu by the President's Council on Environmental Quality, Marjorie Ziegler, executive director of the Conservation Council of Hawaii, spoke about the need for fairness in access to the monument area. She said it does not look fair that commercial fishermen are prohibited from fishing while researchers and others with permits are able to fish there.

Stephanie Fried of the NWHI Hui agreed and expressed concern that increased research expeditions to the monument area will bring more people who could potentially damage the resources.

NWHI Action Taken by Council (see page 2).


THE NSA THINKS IT CAN TRAIN MONK SEALS TO MONITOR PHONE CALLS.
SHEMAN
THE SECRET BEHIND BUSH'S CREATION OF THE WORLD'S LARGEST MARINE WATER PARK REVEALED

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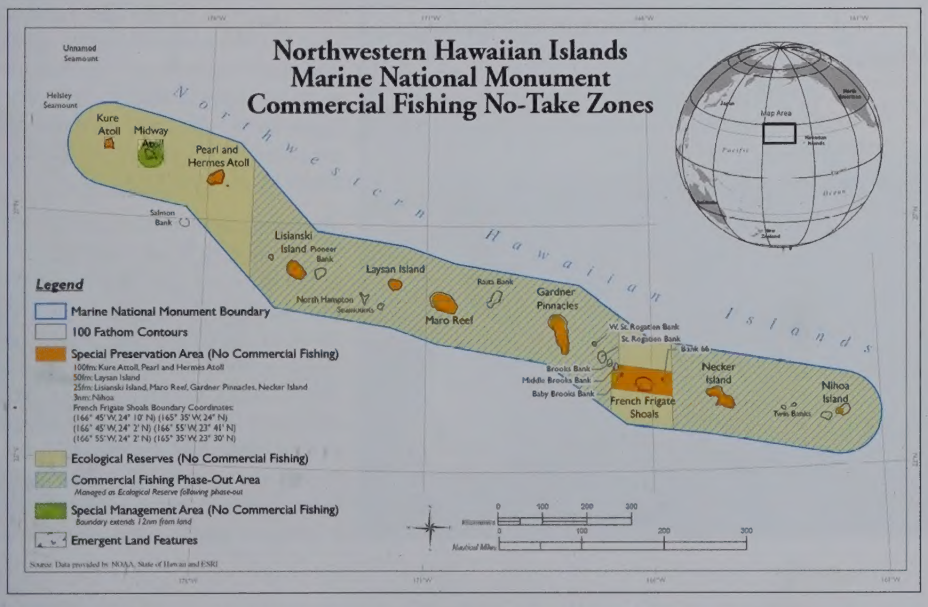

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SIDE SETTING

A WIN-WIN *for Hawaii's Longline Fishery*

A seabird avoidance method available to longline fishing operations reduces the incidence of seabird captures close to zero. Called side setting, the technique eliminates bird mishaps by nearly 100 percent in longline tuna gear and over 87 percent in longline swordfish gear compared to controls.

Laysan *(Phoebastria immutabilis)* and black-footed *(P. nigripes)* albatrosses are incidental bycatch of the Hawaii-based pelagic longline tuna and swordfish fisheries. The range of the endangered short-tailed albatross (*P. albatrus*) also overlaps with the area fished by the Hawaii longline fishery; however, there are no records of accidental captures of this species by the fishery.

Research and commercial tests conducted from 2002-2003 found that side setting out-performed other seabird avoidance methods. Side setting is a means by which setting of longline gear is conducted from the side of the vessel rather than the conventional position at the stern. When setting from the side, crew set baited hooks close to the side of the hull where seabirds, such as albatrosses, are unable or unwilling to pursue them. Ideally, when side setting is done with proper line weighting, by the time the stern passes, the hook has sunk beyond the reach of seabirds.

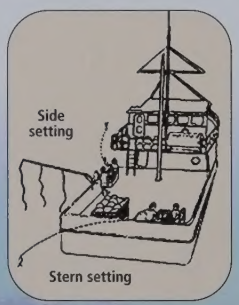


Illustration shows a port side-setting position with bird curtain and the conventional stern-setting position.

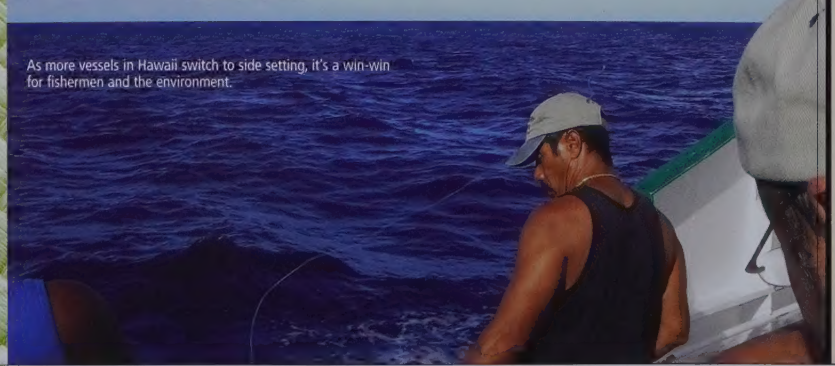
Because side setting promises to also provide large operational benefits, there is the potential for broad industry uptake and voluntary compliance. This was evidenced by the voluntary adoption of side setting by over 15 percent of the fleet before fishery managers formally considered including this strategy in regulations. A significant contributing factor to this success is that vessels in this fleet already use branch lines that achieve a rapid bait sink rate.

Side setting allows a vessel to have a single work area, providing substantially more deck room on all vessels, even those with a forward wheelhouse. The avoidance technique also allows for better supervision of fishing operations by the vessel captain on the bridge, improving the safety and efficiency of fishing. Also, setting off the side, versus the stern, results in less line tangles and reduced bait lost, as gear isn't affected by turbulent stern water.

Many of the Hawaii vessels characterized by forward wheelhouses and aft deck space can still take advantage of the change to side setting by now occupying the redundant aft-most deck space with mainline spools and float storage compartments.

Fishery managers amended regulations to allow Hawaii longline tuna and swordfish vessels to employ side setting as an alternative to currently required seabird avoidance methods, which includes a requirement to dye bait blue. This regulatory amendment came into effect in January 2006.

As more vessels in Hawaii switch to side setting, the potential exists for this to be the first seabird bycatch problem in a longline fleet to be reliably and permanently solved while entailing minimal expenditure for compliance.



As more vessels in Hawaii switch to side setting, it's a win-win for fishermen and the environment.

Council Reconsiders NWHI Monument Fishing Regulations

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In an effort to immediately assist in the management of the new Northwestern Hawaiian Islands (NWHI) Marine National Monument, the Western Pacific Regional Fishery Management Council convened its 134th meeting by teleconference on Aug. 31, 2006. Several amendments were made to measures that the Council had already voted on so as to align them with President Bush's proclamation that established the monument. However, the Council voted against amending its fishery regulations to prohibit commercial bottomfish fishermen from operating in the newly formed ecological reserves (ERs), special preservation area (SPAs) and Midway Atoll Special Management Area (SMA), as outlined in the proclamation. (See related story on page 1.)

The Council agreed to lower the cap on total annual landings of NWHI bottomfish from 381,500 lbs to 350,000 lbs, which is equivalent to a reduction from 85 percent to 75 percent of maximum sustainable yield. It also agreed to six new recommendations for a required vessel monitoring system (VMS) for all NWHI fishing vessels.

The Council went further than the proclamation by recommending that NOAA pay for all associated costs with the VMS and that NOAA compensate NWHI fishermen displaced by the designation. It also recommended that all non-commercial fishing (except cultural sustenance fishing) be banned from the Monument following closure of all commercial fishing in the area in five years, as dictated by the Presidential proclamation.

133RD COUNCIL RECOMMENDS
REDUCTION OF TUNA HARVESTS

The Western Pacific Regional Fishery Management Council, at its 133rd meeting June 13-15, 2006, in American Samoa, voted for international reductions in the catch of Pacific bigeye and yellowfin tuna by purse-seine and longline fleets. The Council recommendation echoed the Inter-American Tropical Tuna Commission (IATTC) decision that fishing mortality from the purse seine fishery should be cut by 38 percent. The Council recommendation also addressed the advice of the Western and Central Pacific Fishery Commission (WCPFC) that fishing mortality of yellowfin and bigeye Pacific-wide should be cut by 20 percent.

THE COUNCIL ALSO VOTED POSITIVELY ON THE FOLLOWING ACTIONS:

- Recommend to the Secretary of the Commerce to close the Hawaii longline swordfish fishery immediately when it reaches its annual allowable interactions with sea turtles
- Investigate economic viability for the American Samoa longline fishery and urge support of tax credits for the Pago Pago canneries
- Convene a working group to investigate the options for the American Samoa longline fishery with respect to alternative markets, value added fish products and economic viability and efficiency given concerns over the long-term continuity of the Pago Pago canneries
- Urge Congress to continue support of the Community Demonstration Projects Program as authorized by the Magnuson-Stevens Fishery Conservation Management Act to promote fisheries in indigenous communities
- Use additional resources to examine the statistical problems in data collected by the Marine Recreational Fisheries Statistical Survey and don't use survey estimates until errors have been corrected

The Council also made several recommendations for the fisheries in the Northwestern Hawaiian Islands (NWHI), which were undergoing a National Marine Sanctuary designation process at the time. However, concurrent with the Council meeting, President George W. Bush unexpectedly proclaimed the NWHI as the nation's first Marine National Monument. The proclamation detailed fishery management regulations that called for immediate closures of all commercial fisheries in the NWHI except the bottomfish fishery, which would be allowed to operate for five years but under reduced harvests, reduced fishing areas and other stringent regulations.

Governor of American Samoa Togiola T.A. Tulafono (right) and Council Chair Frank McCoy present Victoria Reid of South Pacific Academy the first-place award for grades K-2 in the American Samoa Archipelago Ecosystem Poster Contest. The Council sponsored the contest to raise public awareness of the change in the Council's management of fisheries from species-based to ecosystem-based.

Council Executive Director Kitty M. Simonds was granted the title Seutaatia (i.e., Chiefess) of the Lauvao family of the Island of Aunuu in a ceremony conducted at the Council meeting in American Samoa. On hand for the ceremony were Matai Chief Lauvao Stephen Hafeck (left), Lt. Gov. Ipulasi Aitiofele Sunia (far right) and Council Chair Frank McCoy.

RFMOS TO COORDINATE
GLOBAL TUNA MANAGEMENT

At the 26th meeting of the UN Food & Agriculture Organization (FAO) Committee of Fisheries of (COFI) held in March 2005, it was decided that Japan would host a joint meeting of tuna Regional Fishery Management Organizations (RFMOs) with FAO, Jan. 22-26, 2007, in Kobe. One of the main reasons for convening this meeting was the implementation of the tuna fisheries management arrangement for the Western and Central Pacific Ocean in 2004, through the Western and Central Pacific Fisheries Commission (WCPFC). The advent of this new RFMO meant that all the world's tuna stocks are now subject to international fishery management arrangements. Apart from the WCPFC, the other RFMOs attending this meeting will include the Inter-American Tropical Tuna Commission (IATTC), the Indian Ocean Tuna Commission (IOTC), the International Commission for the Conservation of Atlantic Tuna (ICCAT) and the Commission for the Conservation of Southern Bluefin Tuna (CCSBT).

THE MAJOR ISSUES TO BE DISCUSSED WILL INCLUDE

- Reports from each RFMOS and their management measures;
- Review of the world's tuna stocks;
- Addressing fishing capacity and limitation of fishing effort;
- Review of the current situation of RFMOs and markets; and
- Consideration of actions to improve management of tunas such as coordination of measures adopted by RFMOs and capacity control.

An action plan and recommendation to further harmonize tuna conservation and management measures among RFMOs is the anticipated outcome of this event.

The membership of the Western Pacific Regional Fishery Management Council to the U.S. delegations to these Pacific RFMOs is essential since resolutions made by these organizations may have impacts on U.S. longline vessels fishing in the Pacific. For example, U.S. longline vessels of the Western Pacific Region are now subject to quotas for bigeye tuna in both the Eastern Pacific Ocean and the Western and Central Pacific Ocean, which have been addressed by the Council in amendment 14 to its Pelagics Fisheries Management Plan.

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New PUBLICATIONS AVAILABLE

- Proceedings of the Ecosystem and Management Planning Workshop: Development of Ecosystem-based Approaches to Marine Resource Management in the Western Pacific Region (April 18-22, 2005)
- Proceedings of the Ecosystem Social Science Workshop (Jan. 17-20, 2006)
- Proceedings of the International Tuna Fishers Conference on Responsible Fisheries & Third International Fishers Forum (July 25-29, 2005)
- 2005 Pelagic Fisheries Annual Report for the Western Pacific Region
- 2005 Bottomfish and Seamount Groundfish Fishery Annual Report for the Western Pacific Region
- Western Pacific Sea Turtle Cooperative Research & Management Workshop, second edition: Volume 2 (loggerhead sea turtles) (2006)
- Brothers, N. and E. Gilman. (2006) Technical Assistance for Hawaii Pelagic Longline Vessels to Change Deck Design and Fishing Practices to Side Set.
- Gilman, E. et al. (2006). Efficacy and Commercial Viability of Regulations Designed to Reduce Sea Turtle Interactions in the Hawaii-Based Longline Swordfish Fishery.
- Gilman, E. et al. (2006). Pacific Island Mangroves in a Changing Climate and Rising Seas. UNEP Regional Seas Reports and Studies No. 179. UNEP Programme, Nairobi, Kenya.
- Gilman, E. et al. (2006). Reducing Sea Turtle By-catch in Pelagic Longline Fisheries. In: Fish and Fisheries, 7, 2-23.
- Kelly, Kevin E and Messer, Andrea. (2005) Main Hawaiian Island Lobsters: Commercial Catch and Dealer Data Analysis, 1984-2004. Western Pacific Regional Fishery Management Council.
- Kinch, J. (2006). A Socio-economic Assessment of the Huon Coast Leatherback Turtle Nesting Beach Project, Morobe Province, Papua New Guinea. Final report to the Western Pacific Regional Fishery Management Council. (in press)
- Hawaii - A Center for Pacific Sea Turtle Research and Conservation: A report of the Western Pacific Regional Fishery Management Council. (in press)

THESE PUBLICATIONS CAN BE FOUND AT
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135th Council Meeting
OCTOBER 16-19

The 135th Western Pacific Regional Fishery Management Council will convene Oct. 16-19, 2006, at the Ala Moana Hotel in Honolulu. Jeff Coelho, special advisor to Mayor Mufi Hannemann and the City and County of Honolulu's director of customer services, will open the Council meeting on Oct. 17 with an award presentation to winners of the Hawaii Archipelago Ecosystem Poster Contest.

A Fishers Forum,"Catch of the Day," which is a podium for Hawaii community fishing concerns, is at 6-9 p.m. that evening. Guest speakers at the Forum will address mercury in tuna and other seafood heath and safety issues; shark management, including shark viewing operations on Oahu's North Shore; and fishing communities: who they are, where they fish, and their role in ecosystem-based approach to fisheries management.

Action items on the regular Council meeting agenda include, on Oct. 17, the Northwestern Hawaiian Islands Marine National Monument (see related article on pages 1 and 2) and management of *Heterocarpus* (deepwater shrimp), and, on Oct. 18, procedures to close the Hawaii longline fishery, for swordfish when it reaches allowable turtle interaction limits, shark management (see related article on page 8) and management of fisheries around fish aggregating devices in American Samoa.

For more information, go to www.wpcouncil.org or contact the Council at (808) 522-8220 or info.wpcouncil@noaa.gov.

MSA Reauthorization Passes Senate, *Awaits House Vote*

Legislation introduced in 2005 to reauthorize the Magnuson-Stevens Fishery Conservation and Management Act is making headway in Congress.

The U.S. Senate passed its version of the reauthorization (S. 2012) on June 19, 2006. The Senate bill includes several amendments that could benefit the Western Pacific Region:

- Section 6 specifies that fines collected from foreign fishing vessels under a Pacific Insular Area fishery agreement would be deposited to implement Marine Conservation Plans (MCPs), for the Western Pacific Region. The section would also remove the requirement that enforcement costs be subtracted from violation fines before they are deposited.

- Section 109 directs the Secretary of Commerce to establish a pilot program for regionally based marine education and training programs in the Western Pacific Region.

- Section 114 authorizes the Secretary, upon the request of a state Governor, to establish a regional economic transition program to provide disaster relief to fishermen, charter fishing operators, U.S. fish processors and owners of related fishery infrastructure affected by a catastrophic regional fishery disaster.

- Section 503 would create the Western and Central Pacific Fisheries Convention Implementation Act, directing Presidential appointment of U.S. Commissioners to the recently established Western and Central Pacific Fisheries Commission (WCPFC). It would also establish a permanent advisory committee appointed by the U.S. Commissioners, which would include members from groups concerned with fisheries covered by this regional fishery management organization.

The U.S. House of Representatives is expected to vote on its reauthorization legislation, H.R. 5018, after the November elections. However, on Sept. 27, 2006, it passed H.R. 5946, the Stevens-Inouye International Fisheries Monitoring and Compliance Legacy Act of 2006, which is almost identical to the international section of the Senate MSA bill (S. 2012), except for two points. While the Senate bill says the Western Pacific Council will have a seat on the U.S. Commission to the WCPFC, the House bill says either the Western Pacific or the Pacific Council will have a seat, but the two shall coordinate with the other to ensure that the jurisdictional concerns of both Councils are addressed.

New and Reappointed Council Members Announced

R.Adm. Sally Brice-O'Hara

On May 3, 2006, **R.Adm. Sally Brice-O'Hara** replaced R.Adm. Charles D. Wurster as commander of the U.S. Coast Guard's 14th District and as the Coast Guard's representative on the Western Pacific Regional Fishery Management Council. Brice-O'Hara is the first woman to head the district, which includes Hawaii, Guam and Japan. She is a native of Annapolis, Md.

On June 29, 2006, the Secretary of Commerce reappointed **Stephen Haleck** of American Samoa, **Manuel Duenas** of Guam and **Sean Martin** of Hawaii to serve on the Council for 2006-2009. Haleck is a service station owner; Duenas heads the Guam Fishermen's Cooperative Association; and Martin is co-owner of Pacific Ocean Producers. Appointed Council members serve three-year terms and may serve no more than three consecutive terms.

TREDS Offers Central Turtle Database

A new system to consolidate sea turtle monitoring and research data was launched June 12, 2006, in Vanuatu. The Turtle Research Database System (TREDS) is a critical step to understanding population trends for endangered and threatened sea turtles in the Pacific as it addresses the previous lack of overall coordination among the various institutions through the Asia-Pacific Region that tag turtles and collect a range of data.

TREDS was introduced in Vanuatu's marine turtle program based at Wan Smolbag (WSB), where a strong legacy of turtle work exists. This community-based program has actively tagged turtles and promoted conservation since 1995.

"The program has collaborated well with the South Pacific Regional Environment Program (SPREP) and has enough data to help assess any database errors and evaluate if it is, in fact, user-friendly," explains Irene Kinan, the turtle program coordinator for the Western Pacific Regional Fishery Management Council.

Testing of TREDS is scheduled to be introduced next in the sea turtle programs of American Samoa, the Commonwealth of the Northern Mariana Islands, New Caledonia, Papua New Guinea and Samoa.

TREDS is a joint initiative of SPREP, the Council, the Secretariat of the Pacific Community, Queensland Parks and Wildlife, Southeast Asian Fisheries Development Center (SEAFDEC), NOAA Fisheries Pacific Islands Fisheries Science Center, and Marine Research Foundation in Malaysia.

The overarching database for the Pacific Island region will be housed at SPREP in Samoa. A second central database will likely be managed by SEAFDEC in Malaysia. Together these two agencies will manage and consolidate sea turtle research data for their 31 member countries in the Pacific.

The most active WSB turtle monitors on Effate Island gathered to learn about TREDS.

The first-ever tagging in CNMI by local officers was an exciting moment for everyone there. Pictured above, the turtle rests after nesting on Saipan.

CNMI Tags Its First Sea Turtle

After nearly a decade of turtle monitoring activities, the Commonwealth of the Northern Mariana Islands (CNMI) Division of Fish and Wildlife (DFW) received its federal permit allowing it to tag its first green sea turtle. The turtle, measuring 108cm in length and 82cm wide, was successfully tagged May 11, 2006, after having nested at Obyan beach on Saipan.

"This is the first time our staff members have tagged a turtle by themselves," said DFW Director Sylvan Igisomar. "This is an historical moment for the CNMI."

Armed with the necessary turtle-tagging permits received earlier this year from the U.S. Fish & Wildlife and NOAA, DFW staff had intensified their monitoring activities at known nesting beaches. Greg Camacho and Frank Rasa, who performed the procedure, said they had been trying to intercept this particular turtle since observing its tracks several days earlier. Last year, the two individuals and another co-worker attended turtle tagging training conducted by George Balazs at the NOAA Pacific Islands Fisheries Science Center in Hawaii.

Both green and hawksbill turtles inhabit the waters of CNMI. Juvenile turtles are found in abundance, but there origination is a mystery. The NOAA-funded DFW Turtle project will do its share in collecting necessary data that may solve this mystery and reveal other interesting characteristics associated of these culturally significant species for Pacific Islanders.

Ulua TAGGING PROJECT

Boasts Good Participation

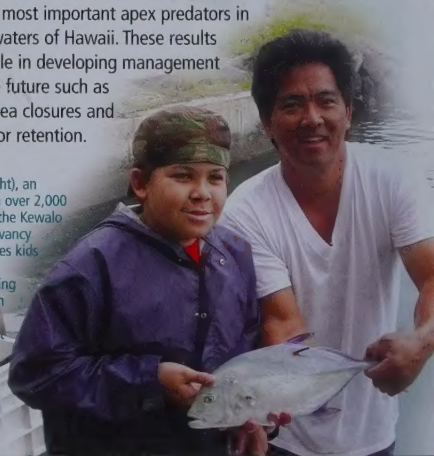
According to a report published in May 2006 by Hawaii's Division of Aquatic Resources, volunteer participation in the Ulua Tagging Project has been "outstanding." The report tracked progress of project that uses recreational fishermen to tag ulua, or jacks (Family Carangidae), mostly in the main Hawaiian Islands but with some tagging conducted in the more remote Northwestern Hawaiian Islands. The report cites the "outstanding assistance and support of all the volunteer anglers involved with the project."

Over 10,000 omilu *(Caranx sexfasciatus)* alone have been tagged between 2000 and 2004. The approximately 1,750 recaptured omilu constitutes a return rate of about 16.5 percent. Other ulua tagged in large numbers include the white ulua, or giant trevally *(Caranx ignobilis)*, with almost 5,000 tagged, and kahala *(Seriola dumerili* and *S. rivoliana)* with almost 1,700 tagged. Overall, the recapture rate for all ulua tagged by the project has averaged about 14.5 percent.

The report goes into detail on the movements revealed by the tagging with some omilu and white papio moving between 40 to 60 miles from their point of capture on Oahu. The long distance record, to date, was made by one kahala tagged at St. Rogatien Bank in the Northwestern Hawaiian Islands and recaptured three-and-half years later at Keahole Point on the Big Island. During this time, the kahala had grown two inches and traveled a linear distance of about 680 miles.

Apart from the tagging data, the report also contains a wealth of other information on these important species, including the decline in landings following ciguatera health concerns in the mid 1980s, which led to the collapse of commercial fishing for species such as white ulua and amberjack. Interestingly, despite continued recreational fishing, the numbers of white ulua exceeding 100 lbs reported by *Hawaii Fishing News* has increased five-fold since 1980, just before ciguatera forced a shut down of commercial fishing.

Ultimately, the tagging data will also be used to generate fishing mortality rates, natural mortalities and population estimates for some of the most important apex predators in the nearshore waters of Hawaii. These results will be invaluable in developing management measures in the future such as seasonal and area closures and minimum size for retention.



Scott Furushima (right), an extreme tagger with over 2,000 tags to date, heads the Kewalo Keiki Fishing Conservancy (KKFC), which teaches kids about fishing and conservation, including tagging. The Western Pacific Regional Fishery Management Council helps to fund both the KKFC and Hawaii's Ulua Tagging Project.

CNMI TAKES *Gold* AT THE 6TH MICRONESIAN GAMES

Commonwealth of the Northern Mariana Islands (CNMI) fishermen won two gold medals during the 6th Micronesian Games Underwater Spearfishing Competition, held on Saipan June 26-27, 2006. It took gold for the team weight category with 180.12 lbs and in the individual weight category with 106.06 lbs, earned by Felix Sasamoto, a CNMI Division of Fish and Wildlife employee.

Guam fishermen came in second with 178.96 lbs for the team weight and 96.72 lbs for individual weight, earned by Mike Genereux.

Third-place honors went to Pohnpei with 96.42 lbs for combined weight and 53.98 lbs for individual weight, earned by Iony Hadley. Fishermen from Belau and the Republic of the Marshall Islands also competed.

▲ Guam fishermen Mike Genereux, James Borja and Myles Driscoll display their catch on the second day of the spearfishing competition.

▲ CNMI fishermen Felix Sasamoto, Mark Hapdai and Frank Pangelinan with "proof on the line" for their fish stories after the first day of the spearfishing competition.

◀ The 6th Micronesian Games Underwater Spearfishing Competition's individual category winners are Mike Genereux of Guam, who took the silver; Felix Sasamota of CNMI with the gold; and Iony Hadley of Pohnpei, who captured the bronze.

Guam Co-Op Gets Longline Permit

Local fishermen are a step closer to having an operable training vessel to learn how to harvest pelagic fish within allowable areas of the U.S. exclusive economic zone surrounding Guam. The Guam Fishermen's Cooperative Association received its federal longline fishing permit on June 21, 2006, which will allow them to operate the 60-foot *Galaide I* (pictured below) as a longline training vessel. The association's Deep-set Longline Project is made possible through an award received from the Community Demonstration Project Program, a program for the U.S. Pacific Islands under the Magnuson-Stevens Fishery Conservation and Management Act.

338-LB MARLIN WINS SAIPAN TOURNEY

Capt. Diego T. Benavente (left) and anglers Vicky I. Benavente, Gene Weaver (with daughter) and Joseph Taijeron won grand prize at the 22nd Annual Saipan International Fishing Tournament for their 337.74 lb Pacific blue marlin, landed aboard the *Victoria*. About 60 boats and more than 100 anglers from throughout the Commonwealth of the Northern Mariana Islands (CNMI), Guam and Belau braved gusty winds to participate in the July 1-2, 2006 event.

Shark Viewing Impacts ON FISHERY ECOSYSTEM Questioned

Concerned about the potential impacts of Hawaii shark viewing operations on fishery operations, human safety and the ecosystem, the Western Pacific Regional Fishery Management Council at its 135th Council meeting Oct. 16-19, 2006, in Honolulu will consider a shark management plan that addresses this activity. The Council will take into consideration comments received at a public meeting on this issue at the Haleiwa Elementary School cafeteria on Oct. 5, 2006.

The State of Hawaii banned shark feeding in State waters in 2002; however, it does not otherwise regulate shark viewing operations except to require operators to have a harbor permit issued by the State Boating Division.

Four shark tour boats currently operate off the north shore of Oahu departing from Haleiwa Harbor. These operations take divers into federal waters, i.e., more than three miles from shore, and place them in cages to view sharks, which are attracted to the area by chum.

In 2004, Council staff was directed to investigate the shark-viewing activities and develop regulations. The Council heard testimony on both sides of the issue in 2005 at a public meeting in Haleiwa. In June 2006, the Council directed its staff to prepare a shark management plan that would address this activity.

Shark tour operators contend their activities do not affect sharks and shark behavior. They claim the sharks that come to their cages are not aggressive and do not aggregate to shore. On the other end of the spectrum, there are those that feel shark tours alter the natural behavior of sharks, which could have larger ramifications to the ecosystem, similar to feeding the bears in a national park.

The public noted a perceived increase in near-shore shark attacks, but it was also noted that other factors may affect the number and frequency of inshore shark encounters. The number of green sea turtles, a prey for sharks, have increased following protection of this species by the Endangered Species Act. Shark populations may have also increased due to recent State and federal shark finning prohibitions.

The hot button topic of shark viewing tour operations was deliberated at public meetings in Haleiwa hosted by the Council in 2005 and 2006.

"...there are those that feel shark tours alter the natural behavior of sharks, which could have larger ramifications to the ecosystem, similar to feeding the bears in a national park."

FMP Amendments to Close Data Gaps Finalized

The National Marine Fisheries (NMFS) has issued a final rule, effective Oct. 12, 2006, to amend three fishery management plans (FMPs) of the Western Pacific Region so as to include within them the federal waters surrounding the Commonwealth of the Northern Mariana Islands (CNMI) and the Pacific Remote Island Areas (PRIAs). The PRIAs include Baker, Howland and Jarvis Islands; Johnston, Palmyra, Midway and Wake Atolls; and Kingman Reef.

These amendments establish new permitting and reporting requirements for vessel operators targeting bottomfish species around the PRIAs and for vessels targeting crustacean and precious coral species in federal waters surrounding CNMI and the PRIAs. The amendments to the Bottomfish, Crustacean and Precious Coral FMPs aim to improve understanding of the ecology of these species and the activities and harvests of the vessel operators that target them.

Pacific Scientists Review Pelagic Stocks Assessments

The Science Committee of the Western and Central Pacific Fisheries Commission (WCPFC) held its second regular session in Manila, Philippines, Aug. 17-18, 2006. A major part of the meeting was focused on stock assessments of bigeye, yellowfin, South Pacific albacore, southwest Pacific swordfish, and southwest Pacific striped marlin as well as information on the likely impact on skipjack catches of potential purse-seine closures. All assessments utilized Multifan-CL, the standard stock assessment tool that has been applied to tuna and billfish stocks in the Western and Central Pacific Ocean (WCPO). The Science Committee's Stock Assessment Specialist Working Group (SA-SWG) reviewed these assessments and provided advice to the Committee for consideration. Stock assessment activities for the northern stocks—North Pacific albacore, Pacific bluefin tuna and North Pacific striped marlin—were also reported.

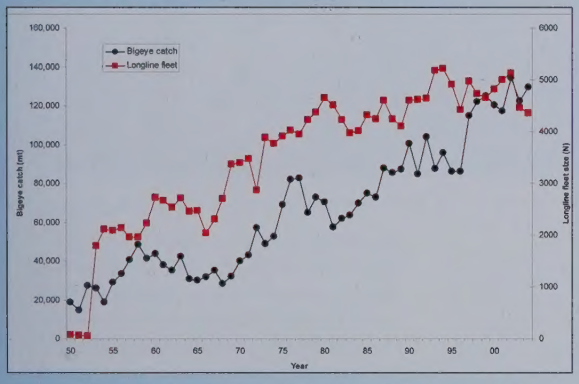


Figure 1. Time series showing longline fleet size and bigeye tuna catch in the Western & Central Pacific Ocean between 1950 and 2004.
Source: Western & Central Pacific Fishery Commission, Tuna Fishery Yearbook, 2004.

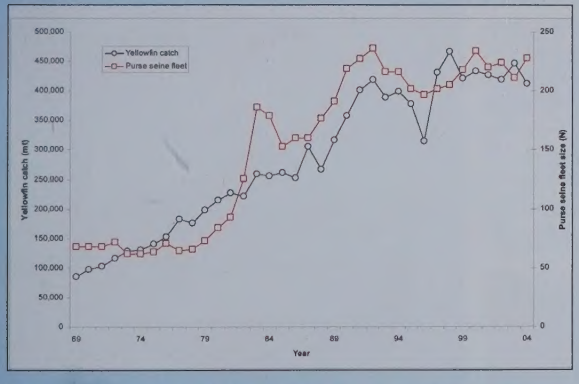


Figure 2. Time series showing purse-seine fleet size and yellowfin tuna catch in the Western & Central Pacific Ocean between 1969 and 2004.
Source: Western & Central Pacific Fishery Commission, Tuna Fishery Yearbook, 2004.

BIGEYE - The 2006 assessment results are consistent with the 2005 assessment that there is a high probability that overfishing of bigeye has been occurring in the WCPO. While the stock is not yet in an overfished state, further biomass decline is likely to occur at 2001-2004 levels, moving the stock into an overfished state.

YELLOWFIN - The 2006 assessment results are consistent with the 2005 assessment, indicating overfishing is occurring in the WCPO, but the stock is not yet in an overfished state. Unlike the case for bigeye, the impact of the longline fishery on yellowfin is relatively small.

SKIPJACK - No assessment was conducted.

SOUTH PACIFIC ALBACORE - A full stock assessment was not undertaken for South Pacific albacore in 2006, but the 2005 assessment was updated using new data for 2004 and 2005. The key conclusions are that overfishing is not occurring and that the stock is not in an overfished state.

SOUTHWEST PACIFIC SWORDFISH - The swordfish stock assessment covers the Southwestern Pacific Ocean for the period 1952-2004. Since 1997, catch rates and mean size of swordfish have been declining in the core areas of the fishery, raising concerns about biological and economic sustainability. The status summary is based upon the results from a subset of 10 models selected from several hundred to represent model uncertainty. Total stock biomass in 2004 was predicted to be between 56 percent and 74 percent of the biomass in 1995.

NORTH PACIFIC ALBACORE - Key conclusions for North Pacific albacore remain unchanged; the stock is considered fully exploited. The management measures introduced by both the WCPFC and Inter-American Tropical Tuna Commissions are consistent with recommendations by the International Scientific Committee on Tuna and Tuna-like Species in the North Pacific Ocean (ISC).

STRIPED MARLIN - This was the first attempt to carry out an assessment in the Southwest Pacific. Results should be considered preliminary as there is significant uncertainty regarding model parameters. Scenarios indicate current levels of fishing mortality may approximate or exceed the reference level fishing mortality at maximum sustainable yield (MSY) and current spawning biomass levels may approximate or be below the MSY biomass reference point. It is recommended there should be no increase in fishing mortality.

WORKSHOP ADDRESSES THREATS TO BLACK CORAL

Area-based management, eradication of *Carijoa riisei* from identified pockets in waters surrounding Kauai and Niihau, replanting projects and more research including joint projects between researchers and black coral divers are among the recommendations proposed by 18 resource managers, scientists, enforcement officers and industry operators who convened the 2006 Black Coral Science & Management Workshop in Honolulu. These and other recommendations from the April 18-19, 2006, workshop will be submitted for consideration to the Western Pacific Regional Fishery Management Council, which hosted the event with the Hawaii Division of Aquatic Resources.

During the workshop, Dr. Richard W. Grigg of the University of Hawaii said that increased harvesting pressure and the introduction of the alien invasive species *C. riisei* appear to threaten the future stability of the fishery.

Sam Kahng of the University of Hawaii explained that *C. riisei*, commonly known as snowflake coral, is a shade-loving, shallow-water coral that was originally found in the tropical Western Atlantic and Caribbean. It was discovered on the island of Oahu in 1966 and has since spread throughout the main Hawaiian Islands. It was first sighted in the Auau Channel, between the islands of Maui and Lanai, in 1983. In 2001, a survey of the deep reef in this channel showed a significant number of dead black coral colonies were overgrown with *C. riisei* below 70 meters. In 2001-2004 surveys more than 50 percent of black coral colonies in the channel were overgrown with *C. riisei* on the deep reef below 70 meters. In most cases black coral colonies were completely smothered by a thick carpet of *C. riisei*.

While it is unclear to what extent *C. riisei* will ultimately proliferate, evidence suggests that the invasion has yet to peak and the impact on the black coral population will worsen. No previous large scale mortality of black coral colonies has been observed from any causal factor other than harvesting through 40 years of continuous black coral research and commercial fishing activity.

While *C. riisei* overgrowth on black corals is widespread in the Auau Channel, it has been observed at only a few shallow-water sites in Kauai – home to the second largest black coral population in Hawaii. Eradication may be feasible at Kauai if prompt and decisive management action is taken.

Hawaii black corals *Antipathes dichotoma* and *A. grandis* are commercially valuable species used for the manufacture of precious coral jewelry. Black coral is the official gemstone for the state of Hawaii and supports a multi-million dollar state-wide industry, which has been successfully managed since 1958.

A report of the workshop will be made available on the Council's website at **www.wpcouncil.org** in the fall of 2006.

Black coral suffering from *Carijoa riisei*. Photo by Sam Kahng

Students Benefit from Council's Fisheries Course

The Western Pacific Regional Fishery Management Council and Moanalua High School teamed up this summer to offer Hawaii high school students a two-week immersion and crash course in marine issues and activities. The program is one of several education initiatives sponsored by the Council.

Topics covered in the High School Summer Course on Marine Fisheries and Resources included monk seals, sea turtles, seabirds, fish identification and habitat, alien and native marine species, aquaculture and stock enhancement, cultural and traditional fisheries, tag and release, fish migration and fisheries conservation and management. Students also toured the live fish auction at Pier 38, a fish processing and retail store, aquaculture facilities, research centers, a Coast Guard patrol vessel, a marine reserve, and longline, bottomfish and charter fishing boats.

The course was made possible through the volunteer efforts of a variety of organizations, including the Anuenue Fisheries Research Center, Blue Ocean Institute, Hawaii Community College, Hawaii Institute of Marine Biology, Kewalo Keiki Fishing Conservancy, National Marine Fisheries Services' Pacific Islands Fisheries Science Center and Pacific Island Regional Office, Oceanic Institute, Pacific Islands Resource Management Institute, Pacific Ocean Producers, PacMar Inc., State of Hawaii Division of Aquatic Resources, Tropics Fish and Vegetable Center, United Fishing Agency, University of Hawaii and University of Hawaii's Sea Grant College Program.
For more information on the course or to obtain a copy of *Get Hooked: Sustainable Fisheries*, an award-winning short video the students made during the course, contact Sylvia Spalding at Sylvia.spalding@noaa.gov or 808 522-5341.

Hawaii teens explored the applications of marine science on field trips during a summer course organized by the Council. Touring research facilities, making poke (Hawaiian raw fish dish) and visiting a variety of fishing vessels were among the activities during the two-week course.

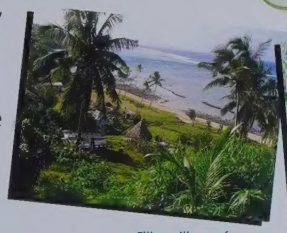
Educators Conference Set for Fiji

Marine educators worldwide will gather Jan. 15 to 19, 2007, in Suva, Fiji, to share resources and build a network aimed at ensuring the health of the Pacific Ocean and the communities who depend upon it. Marine educators – in the broadest sense – are invited to participate in the International Pacific Marine Educators Conference at the University of the South Pacific. Web conferencing will allow educators who are unable to travel to Fiji to participate.

FOR MORE INFORMATION, VISIT THE CONFERENCE WEBSITE AT

www.ipmec.info

Individuals and organizations interested in sponsoring participants are asked to contact Sylvia Spalding at Sylvia.spalding@noaa.gov.



Fijian village of Mositi Vanuaso

American Samoan children depend on the Pacific Ocean

Hawaii Facing Multiple Deep 7 No-Take Zones

In an effort to end bottomfish overfishing in the main Hawaiian Islands (MHI), the Western Pacific Regional Fishery Management Council on March 16, 2006, voted to establish a closure in the MHI for seven deepwater snappers between May 1 and August 1, annually, pending the State of Hawaii's agreement to adopt parallel regulations for State waters (0 to 3 miles offshore). Known as the Deep 7, these snappers include ehu (or ulaula), onaga (or ulaula koae), opakapaka, hapuupuu, kalekale, gindai (or ukikiki) and lehi (or lehe). The seasonal closure was expected to reduce fishing mortality of MHI bottomfish by up to 17 percent, which met the necessary 15 percent reduction in bottomfish fishing mortality, according to the National Marine Fisheries Service (NMFS).

Should the State not commit to adopting parallel seasonal regulations, the Council's second option was to close federal waters around Middle and Penguin Banks. Located north of Kauai and west of Molokai, respectively, these banks represent the majority of the bottomfish grounds located in federal waters surrounding the MHI. Penguin Bank also accounts for 60 percent of the commercial bottomfish landed by Oahu fishermen.

In April, the State notified the Council that it would not agree to seasonal closures but would instead move to implement a dozen new Bottomfish Fishing Restricted Areas (BFRAs) for the Deep 7. NMFS is in the process of analyzing whether the BFRAs, which were finalized in July 2006, meet the required 15 percent reduction. Two-thirds of the waters in the proposed BFRAs are located in federal waters. The revised plan has yet to go through the State's administrative rule process.

Meanwhile, the federal closures of Middle and Penguin Banks are being finalized for review by the Secretary of Commerce and are projected to be in place by spring 2007.

NMFS had notified the Council of the overfishing situation on May 27, 2005. The Council is required, under the Magnuson-Stevens Fishery Conservation and Management Act, to take action to amend its fishery management plan for the species within one year of receiving notification that overfishing is occurring.

Ho'ohanohano I Nā Kūpuna

PERPETUATES FISHING HERITAGE

More than 100 traditional fishing and farming practitioners representing all 45 *moku* (traditional land districts) of the Hawaii Archipelago convened Aug. 15-17, 2006, in Honolulu at the first *puwalu* (conference) of the *Ho'ohanohano I Nā Kūpuna* (Honor Our Ancestors) series. During this landmark occasion, participants discussed a mutual strategy for perpetuating practices relating to the *'āina* (land), *wai* (water) and *kai* (sea) that have been handed down to them from their ancestors.

Recommendations from the first *puwalu* will be forwarded to the second and third puwalu of the series, which will convene educators Nov. 8-9 and policymakers on Dec. 19-20, 2006, in Honolulu.

The first puwalu was hosted by the Western Pacific Regional Fishery Management Council and Kamehameha Schools, with the support of the Association of Hawaiian Civic Clubs, the Hawaii Tourism Authority, the Office of Hawaiian Affairs and Pacific Islands Resource Management Institute.

The poster created for the first puwalu by Oliver Kinney, a gifted Native Hawaiian artist and illustrator, captures the *kaona* (hidden meaning) of *Ho'ohanohano I Nā Kūpuna.*

COUNCIL CALENDAR 2006–2007

OCTOBER 2006

12 **Recreational Fisheries Data Task Force,** Council office, Honolulu

16-19 **135th Council Meeting,** Ala Moana Hotel, Honolulu

18-19 **South Pacific Tuna Treaty informal consultation,** San Diego, Calif.

24-25 **Fishery Ecosystem Plan Data Requirements Workshop,** Council office, Honolulu

24-28 **16th U.S. Coral Reef Task Force,** U.S. Virgin Islands

26-27 **2006 Seabird Conservation & Management Workshop,** Kaneohe, Hawaii

30-31 **International Council for the Exploration of the Sea 2006,** Boston, Mass.

31 **Council Chair & Executive Directors meeting and New Council Members training,** Washington, DC

NOVEMBER

1-2 **Council Chair & Executive Directors meeting and New Council Members training,** Washington, DC

1-3 **International Council for the Exploration of the Sea 2006,** Boston, Mass.

2 **Social Science Indicators Workshop,** Council office, Honolulu

8-9 **Hoohanohano I Na Kupuna, Puwalu II – Educators,** Honolulu

13-14 **Coral Reef Ecosystem Plan Team,** Council office, Honolulu

14-17 **Joint Pelagic Fisheries Research Program and GLOBE Climate Impacts on Oceanic Topic Predators (CLIOTOP) Workshop on Role of Squid in Pelagic Marine Ecosystems,** Honolulu

15-17 **Conference on Hawaiian Indigenous Education, Research & Well-Being,** Honolulu

17-20 **Japan Sea Turtle Symposium,** Kumano City, Japan

21-25 **Tri-national Exchange,** Osaka, Japan

29-30 **Hawaiian Monk Seal Recovery Team,** Honolulu

DECEMBER

1 **Hawaiian Monk Seal Recovery Team,** Honolulu

11-17 **Western & Central Pacific Fisheries Commission,** Apia, Samoa

19-20 **Hoohanohano I Na Kupuna, Puwalu III – Policymakers,** Ala Moana Hotel, Honolulu

JANUARY 2007

2-4 **Third Fisheries Ecosystem Workshop — Policy Integration,** Council office, Honolulu

8-10 **Marine Fisheries Advisory Committee,** Washington, DC

9-11 **Interim Council Chairs & Executive Directors,** Washington, DC

15-19 **International Pacific Marine Educators Conference,** Suva, Fiji

22-26 **Joint Tuna Regional Fishery Management Organizations,** Tokyo

Recipe GREY SNAPPER FLORENTINE *with* SEAFOOD BERNAISE SAUCE

Serves 2 people

2 fillets fresh grey snapper, pin bones removed
kosher salt
pepper
2 tbsp flour
oil
1 cup fresh spinach leaves

Method:

Season snapper fillets on both sides to taste. Then dust in flour. Heat sauté pan over a high heat. Add oil and pan sear fillets to desired doneness.

Plating:

Transfer fillets onto a bed of spinach leaves on a heated serving plate. Top the fish fillets with Seafood Béarnaise Sauce. Serve.

SEAFOOD BEARNAISE SAUCE

1 lb unsalted butter
1/4 cup red wine vinegar
2 tsp shallots, minced
2 tsp whole dried tarragon leaves
4 egg yolks
1/4 lemon
1/4 cup crab meat, cooked
1/2 cup shrimp meat, cooked and chopped

Melt 1 lb of unsalted butter in a sauce pot over low heat. Skim off and save the top clarified butter layer. Reserve warm.

Meanwhile, heat the red wine vinegar, shallots and tarragon leaves to a slow simmer, and let reduce until the liquid evaporates and is absorbed into the shallots and tarragon leaves. Remove from heat and cool.

Place egg yolks into a water double boiler that has been brought to a slow simmer. Whisk the egg yolks until they thicken in volume. Slowly drizzle in 2 cups of the clarified butter, while whisking continuously, to ensure a properly emulsified butter sauce. Add the tarragon reduction, juice from the lemon quarter and salt and pepper to taste. Keep béarnaise sauce warm (not too hot or sauce will separate). Add the cooked chopped seafood to the béarnaise sauce just prior to serving.

courtesy of D. K. Kodama, chef and owner, Sansei Seafood Restaurant & Sushi Bar